Practical Phytotherapy Summery

Method of extraction:

1- Distillation.
2- Decoction.
3- Percolation.
4- Expression.
5- Digestion.
6- Infusion.
7- Maceration.

Type of Extraction: -

1- Liquid – Liquide Chromatography (Partition).
2- Solid – Liquid Chromatography (Adsorbents).

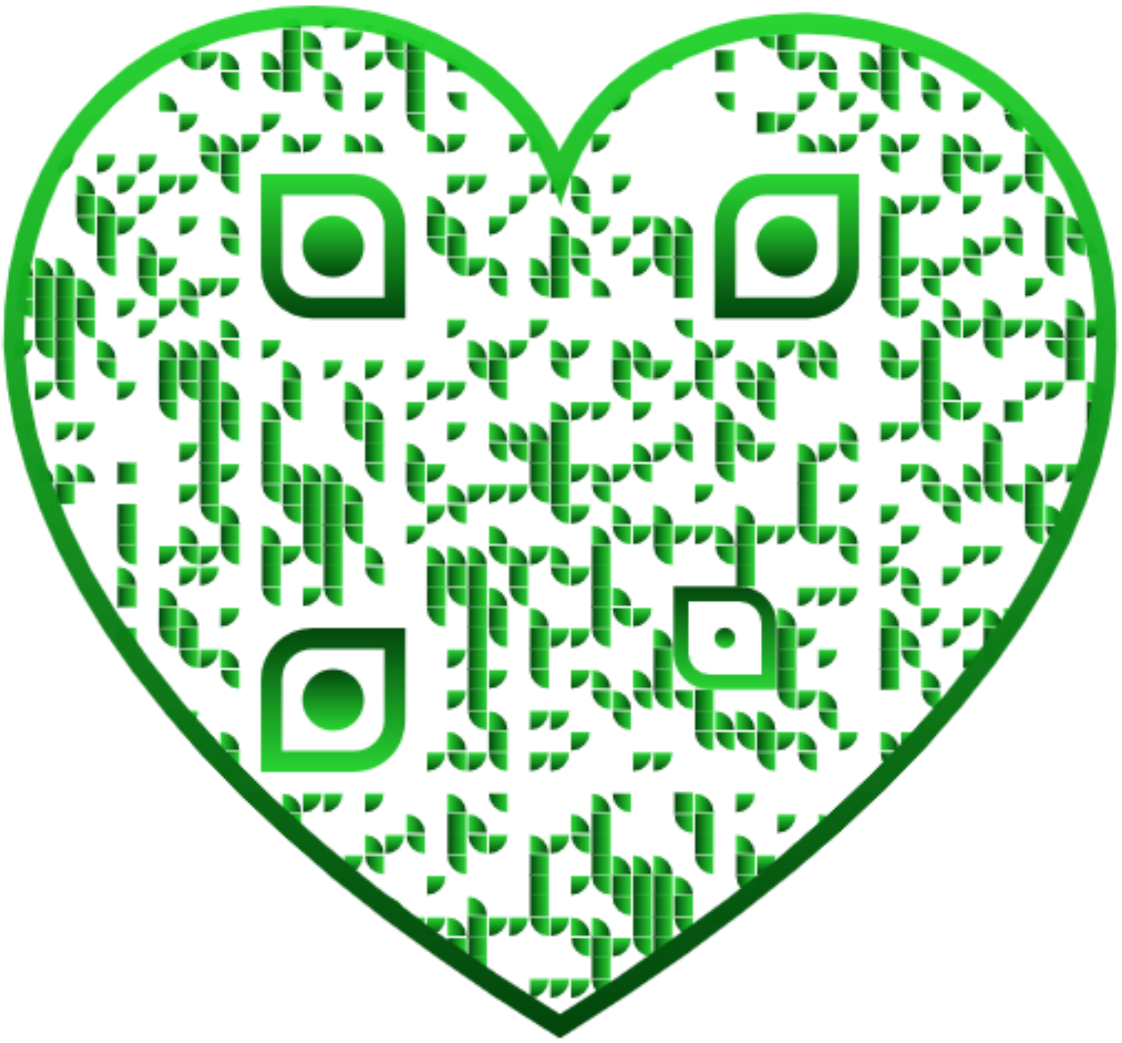
* ***Stationary*** **phase in chromatography is** ***Solid*** **or** ***liquid*****.**
* ***Mobile*** **phase in chromatography is** ***liquid*** **or** ***qas*** **.**

Column development can be carried out by:-

1- Gravity.
2- Gradients formation.
3-Applying nitrogen pressure at the inlet.
4- Applying vacuum pressure at the outlet.
5- Low and medium pressure pumped elution.

Detection of sample band in column development in based on examination: -

1- Visible light for colored substances.
2- UV light for fluorescence substances.
3- Spraying reagent.



Properties of adsorbent:

1- Insoluble in solvent use.
2- Not reach with solvent or compound.
3- Colorless.
4- Small Particle Size and high adsorption power.

Type of adsorbent: -

1- Alumina $ALCL_3$.
2- Silica gel.
4- Calcium carbonate $CaCO_3$.

*** In chromatography separation the Sudan III + Crystal violate separated as:**

a) <u>first elution Sudan in red colour by chloroform</u>.
b) <u>Second elution crystal violate in pink colour by ethanol.</u>

Give the difference between Senna and Aloe:-

Aloe	***Senna***
Give reddish pink color in aqueous layer when shack with 2 ml of 10% dil NH4OH.	Give rose pink color In aqueous layer when shack will with 2mll of 10% of dil NH4OH.

**** what is the reason for the appearance of the red color in guigriared test of cyanogenic glycoside?***

Because the reaction between sodium picrate and HCN to form Sodium isopurate which is brick red in color.

AC	*Name of plant*	*Name of the test*	*Solvent*	*indicator*	*Color result*
Anthraquinone	Senna	Porntrater test	Ethanol	KOH	Red
Saponin	Liqurice	Forth test	H_2O	Shacking	Foam
Flavonoids	Orange	……..	Ethanol	KOH	Yellow
Cryogenic	Linseed	Grignard test	H_2O	Sodium picrate	Red
Volatile oil	Cinnamon	……..	Dichloro methan	Sudan III	Red
Tannins	Tea	Ferric chloride test.	H_2O	$FeCl_3$	1- dark green with condensed tannins . 2- bluish black colo with hydrolysable tannins
Alkaloids	Tea	General test	water	Mayer Wagner Dragendoroff	Creamy Brownish Orange

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